

THERMAL SPRAY REINFORCEMENT OF A STABILIZER BAR

ABSTRACT OF THE DISCLOSURE

A manufacturing process produces a stabilizer bar having a thickened, reinforced portion formed by thermal spraying a molten metal onto a surface of the bar. The process produces a stabilizer bar having a thickened portion in the areas typically subject to fatigue failure while avoiding the addition of unnecessary material and weight to other locations of the stabilizer bar not needing reinforcement. In one example, the unprocessed bar stock is thermally sprayed in desired locations. The thermally sprayed bar is formed into a desired shape and heat treated. The heat treated, formed, and sprayed bar is shot peened. Alternatively, the bar is thermally sprayed after the surface has been prepared by shot peening. Forming of the bar may also occur before thermal spraying, and pretreated bar stock may also be used.